

Preamble

COSEWIC
List of Prioritized Crustaceans

and

Related Groups at Risk

in Canada

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COSEWIC
Committee on the Status
of Endangered Wildlife
in Canada



COSEPAC
Comité sur la situation
des espèces en péril
au Canada

PREAMBLE

The Terrestrial Arthropods Subcommittee of COSEWIC is responsible for evaluating an enormous proportion of the nation's biodiversity: fully 33% of Canada's species are arthropods, there are more than 20X as many arthropods in Canada as there are vertebrates and nine times as many arthropods as there are plants (Canada's Species, 2012). It has been suggested that 20% of the world's invertebrates are at risk of extinction (Collen et al., 2012). While most arthropods are ignored, or considered pests, by many people, it is literally true that it is "the small things that run the world" (Wilson, 1987) as a result of their activities associated with decomposition, nutrient cycling and pollination to name a few. The economic value of such activities is enormous and the ecological value incalculable.

Given the difficulties of dealing with the conservation of such a large and diverse group of organisms, the Terrestrial Arthropods Subcommittee has long been concerned that a large proportion of this component of the nation's biota is not receiving appropriate attention from COSEWIC. This is a simple result of the sub-committee being made up of entomologists combined with the greater number of insect taxonomists and ecologists compared to those studying other arthropod groups.

In light of these difficulties, COSEWIC agreed with the sub-committee that a survey of other terrestrial invertebrate groups should be undertaken to evaluate the degree to which endangered species might be overlooked. Consequently, a call for bids for a contract to develop "a prioritized candidate species list of crustaceans and related groups potentially at risk in Canada" was announced in the fall of 2009. An earlier "Crayfish Report" was suggested as a template for the new report. It was also expected that marine species would not be covered, with the expectation that the 1500 or so marine arthropods would receive investigation by DFO. The successful applicant was Andrea Smith.

The report below is the result of Dr. Smith's efforts. It deals with the many of the known non-marine and non-insect invertebrates in Canada.

Not included in this report are some draft candidate species assessments which are under further study by the Terrestrial Arthropods Subcommittee, ten species have been evaluated and are being placed at various levels of concern through the Subcommittee's priority lists.

An important conclusion from this report is that, at present, there seems to be no pressing need to add another Subcommittee to COSEWIC to deal with non-insect arthropods. It is suggested that, if further study suggests that multiple species in taxonomic groups outside the expertise of the committee are put forward for detailed assessment, that a temporary enlargement of the current committee would probably be sufficient to perform the task.

References

Canada's Species. <http://canadianbiodiversity.mcgill.ca/english/species/index.htm>
Accessed September 18th 2012.

Collen, M, Böhm, M., Kemp, R. and Baillie, J.E.M. 2012. *Spineless: status and trends of the*

world's invertebrates. Zoological Society of London, United Kingdom.

Wilson, E.O. 1987. The little things that run the world (the importance and conservation of invertebrates). *Conservation Biology* 1:344-346.